

PCT10

RAW SEQUENCE LISTING

DATE: 01/14/2002

PATENT APPLICATION: US/10/009,456

TIME: 07:51:06

Input Set : A:\USSEQLIST.TXT

Output Set: N:\CRF3\01142002\J009456.raw

ENTERED

4 <110> APPLICANT: BROWN, JAMES R.
 5 CHALKER, ALISON F.
 6 DU, WENSHANG
 7 KATZ, LISA K.
 8 MAZZULLA, MARIE JEAN
 9 PAYNE, DAVID J.
 10 TRAINI, CHRISTOPHER M.
 12 <120> TITLE OF INVENTION: Methods Using Mechanisms of Action of
 13 AroA
 15 <130> FILE REFERENCE: GM50053
 17 <140> CURRENT APPLICATION NUMBER: US/10/009,456
 18 <141> CURRENT FILING DATE: 2001-11-05
 20 <150> PRIOR APPLICATION NUMBER: PCT/US00/12251
 21 <151> PRIOR FILING DATE: 2000-05-04
 23 <150> PRIOR APPLICATION NUMBER: 60/133,070
 24 <151> PRIOR FILING DATE: 1999-05-07
 26 <160> NUMBER OF SEQ ID NOS: 4
 28 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 30 <210> SEQ ID NO: 1
 31 <211> LENGTH: 1284
 32 <212> TYPE: DNA
 33 <213> ORGANISM: Streptococcus pneumoniae
 35 <400> SEQUENCE: 1
 36 atgaaactaa aaacaaacat tgcctattta catggtatta tccgcgtccc aggtgacaag 60
 37 tctatcagcc accgttccat tatctttgga agtttggtcg agggtagagac caaggtttat 120
 38 gatattctgc gaggtgaaga cgttctttcg accatgcagg tttttcgtga ccttggtgtt 180
 39 gaaattgagg ataaagatgg ggttattacc gttcaagggt taggcattggc tggcttaaaa 240
 40 gcgcgcgcaa atgcccttaa tatgggaaat tctggcacct cgattcgcct gatttcaggt 300
 41 gtccttgctg gtgcagattt cgaagtagag atgtttggag atgatagtct ttccaaacgt 360
 42 cctatggacc gtgtgacct tccactgaaa aaaatgggcy tcagcatctc agggcaaac 420
 43 gaacgagact tgcctccct tgccttaaaa gggacgaaaa acctaaagacc tattcattat 480
 44 gagttgccaa ttgcctctgc ccaagtcaag tcagccttga tgtttgacgc cttacaagct 540
 45 aagggggagt cagttattat cgaaaaagag tacacccgta atcactactga agatattgtt 600
 46 caacaatttg gtggtcattt aagtgtggat ggtaagaaaa tcacagtcca agggccacaa 660
 47 aaattgacag gacagaaggt ggtcgtacca ggagatattt ccagtgcagc cttttggtta 720
 48 gtcgcaggtt tgattgctcc aaattctcgt ctagtgtctc agaattgtgg gataaacgaa 780
 49 actcgcaccg gtattattga tgtcattcgt gccatgggtg gaaaattgga aataactgaa 840
 50 atcgatccag tcgctaaatc tgcaaccttg attgttgagt cttctgactt gaaaggaaca 900
 51 gagatttgtg gcgctttgat tccacgtttg attgatgaat tgcctattat tgcctactt 960
 52 gcgacccaaag cccaaggtgt aacagttatc aaggatgctg aggagctcaa ggtcaaggaa 1020
 53 acagaccgta ttcaggttgt ggcagacgcc ttaaatagta tgggagcaga tattactcct 1080
 54 acggcagatg ggatgattat caaaggaaaa tcagctcttc acggtgctag agtcaatacg 1140
 55 tttggtgacc accgtatcgg catgatgaca gctatcgcag ccttattggt tgcagatgga 1200
 56 gaggtggagc ttgaccgtgc agaagccatc aataccagct atcctagtgt ctttgatgat 1260
 57 ttggagagct tgattcatgg ctaa 1284
 59 <210> SEQ ID NO: 2
 60 <211> LENGTH: 427

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61 <212> TYPE: PRT
62 <213> ORGANISM: Streptococcus pneumoniae
64 <400> SEQUENCE: 2
65 Met Lys Leu Lys Thr Asn Ile Arg His Leu His Gly Ile Ile Arg Val
66 1 5 10 15
67 Pro Gly Asp Lys Ser Ile Ser His Arg Ser Ile Ile Phe Gly Ser Leu
68 20 25 30
69 Ala Glu Gly Glu Thr Lys Val Tyr Asp Ile Leu Arg Gly Glu Asp Val
70 35 40 45
71 Leu Ser Thr Met Gln Val Phe Arg Asp Leu Gly Val Glu Ile Glu Asp
72 50 55 60
73 Lys Asp Gly Val Ile Thr Val Gln Gly Val Gly Met Ala Gly Leu Lys
74 65 70 75 80
75 Ala Pro Gln Asn Ala Leu Asn Met Gly Asn Ser Gly Thr Ser Ile Arg
76 85 90 95
77 Leu Ile Ser Gly Val Leu Ala Gly Ala Asp Phe Glu Val Glu Met Phe
78 100 105 110
79 Gly Asp Asp Ser Leu Ser Lys Arg Pro Met Asp Arg Val Thr Leu Pro
80 115 120 125
81 Leu Lys Lys Met Gly Val Ser Ile Ser Gly Gln Thr Glu Arg Asp Leu
82 130 135 140
83 Pro Pro Leu Arg Leu Lys Gly Thr Lys Asn Leu Arg Pro Ile His Tyr
84 145 150 155 160
85 Glu Leu Pro Ile Ala Ser Ala Gln Val Lys Ser Ala Leu Met Phe Ala
86 165 170 175
87 Ala Leu Gln Ala Lys Gly Glu Ser Val Ile Ile Glu Lys Glu Tyr Thr
88 180 185 190
89 Arg Asn His Thr Glu Asp Met Leu Gln Gln Phe Gly Gly His Leu Ser
90 195 200 205
91 Val Asp Gly Lys Lys Ile Thr Val Gln Gly Pro Gln Lys Leu Thr Gly
92 210 215 220
93 Gln Lys Val Val Val Pro Gly Asp Ile Ser Ser Ala Ala Phe Trp Leu
94 225 230 235 240
95 Val Ala Gly Leu Ile Ala Pro Asn Ser Arg Leu Val Leu Gln Asn Val
96 245 250 255
97 Gly Ile Asn Glu Thr Arg Thr Gly Ile Ile Asp Val Ile Arg Ala Met
98 260 265 270
99 Gly Gly Lys Leu Glu Ile Thr Glu Ile Asp Pro Val Ala Lys Ser Ala
100 275 280 285
101 Thr Leu Ile Val Glu Ser Ser Asp Leu Lys Gly Thr Glu Ile Cys Gly
102 290 295 300
103 Ala Leu Ile Pro Arg Leu Ile Asp Glu Leu Pro Ile Ile Ala Leu Leu
104 305 310 315 320
105 Ala Thr Gln Ala Gln Gly Val Thr Val Ile Lys Asp Ala Glu Glu Leu
106 325 330 335
107 Lys Val Lys Glu Thr Asp Arg Ile Gln Val Val Ala Asp Ala Leu Asn
108 340 345 350
109 Ser Met Gly Ala Asp Ile Thr Pro Thr Ala Asp Gly Met Ile Ile Lys
110 355 360 365

```

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```

111 Gly Lys Ser Ala Leu His Gly Ala Arg Val Asn Thr Phe Gly Asp His
112      370                      375                      380
113 Arg Ile Gly Met Met Thr Ala Ile Ala Ala Leu Leu Val Ala Asp Gly
114 385                      390                      395                      400
115 Glu Val Glu Leu Asp Arg Ala Glu Ala Ile Asn Thr Ser Tyr Pro Ser
116                      405                      410                      415
117 Phe Phe Asp Asp Leu Glu Ser Leu Ile His Gly
118                      420                      425

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121 <210> SEQ ID NO: 3

122 <211> LENGTH: 1245

123 <212> TYPE: DNA

124 <213> ORGANISM: Streptococcus pneumoniae

126 <220> FEATURE:

127 <221> NAME/KEY: unsure

128 <222> LOCATION: (482)(483)(484)(485)(486)(487)(488)(489)(490)(491)

129 <222> LOCATION: (492)(493)(494)(495)(496)(497)(498)(499)

130 <223> OTHER INFORMATION: Where n can be represented by a, c, t, or g

132 <400> SEQUENCE: 3

```

133 aqcttgatcg tcccaggtga caagtctatc agccaccggt ccattatctt tggaagtttg 60
134 gctgagggtg agaccaaggt ttatgatatt ctgagagggt aacacggtct ttcgaccatg 120
135 caggtttttc gtgaccttgg tgttgaaatt gaggataaag atgggggttat taccgttcaa 180
136 ggtgtaggca tggtggctt aaaagcgccg caaaatgcc ttaatatggg aaattctggc 240
137 acctcgatc gcttgatttc aggtgtcctt gctggtgcag atttcgaagt agagatgttt 300
138 ggagatgata gtctttccaa acgtcctatg gaccgtgtga cccttcact gaaaaaaatg 360
139 ggcgtcagca tctcagggca aactgaacga gacttgctc cccttcgctt taaaagggaac 420
140 gaaaaaccta agacctatc attatgagtt gccaatggc tctgcccaag tcaagtcagc 480
141 cnnnnnnnnn nnnnnnnnnc taagggggag tcagttatta tcgaaaaaga gtacacccgt 540
142 aatcatactg aagatatgtt gcaacaattt ggtggtcatt taagtgtgga tggtaagaaa 600
143 atcacagtc aagggccaca aaaattgaca ggacagaagg tggctgtacc aggagatatt 660
144 tccagtgcag ccttttggtt agtcgcaggt ttgattgctc caaattctcg tctagtgtctg 720
145 cagaatgtgg ggataaacga aactcgcacc ggtattattg atgtcattcg tgccatgggt 780
146 ggaaaattgg aaataactga aatcgatcca gtcgctaaat ctgcaacctt gattgttgag 840
147 tcttctgact tgaaaggaac agagatttgt ggcgctttga ttccacgttt gattgatgaa 900
148 ttgcctatta ttgcctact tgcgacccaa gcccaagggt taacagttat caaggatgct 960
149 gaggagctca aggtcaagga aacagaccgt attcaggttg tggcagacgc cttaaatagt 1020
150 atgggagcag atattactcc tacggcagat gggatgatta tcaaaggaaa atcagctctt 1080
151 cacggtgcta gagtcaatac gtttggtgac caccgtatcg gcatgatgac agctatcgca 1140
152 gccctattgg ttgcagatgg agaggtggag cttgaccgtg cagaagccat caataccagc 1200
153 tatectagtt tctttgatga ttggagagc ttgattcatg gctaa 1245

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155 <210> SEQ ID NO: 4

156 <211> LENGTH: 415

157 <212> TYPE: PRT

158 <213> ORGANISM: Streptococcus pneumoniae

160 <220> FEATURE:

161 <221> NAME/KEY: unsure

162 <222> LOCATION: (149)((161)(162)(163)(164)(165)(166)(167)(168)

163 <223> OTHER INFORMATION: Where Xaa can be represented by any one of the twenty naturally

164 <223> OTHER INFORMATION: occurring proteins

166 <400> SEQUENCE: 4

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/009,456

DATE: 01/14/2002

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Input Set : A:\USSEQLIST.TXT

Output Set: N:\CRF3\01142002\J009456.raw

167 Ser Leu Ile Val Pro Gly Asp Lys Ser Ile Ser His Arg Ser Ile Ile
 168 1 5 10 15
 169 Phe Gly Ser Leu Ala Glu Gly Glu Thr Lys Val Tyr Asp Ile Leu Arg
 170 20 25 30
 171 Gly Glu His Val Leu Ser Thr Met Gln Val Phe Arg Asp Leu Gly Val
 172 35 40 45
 173 Glu Ile Glu Asp Lys Asp Gly Val Ile Thr Val Gln Gly Val Gly Met
 174 50 55 60
 175 Ala Gly Leu Lys Ala Pro Gln Asn Ala Leu Asn Met Gly Asn Ser Gly
 176 65 70 75 80
 177 Thr Ser Ile Arg Leu Ile Ser Gly Val Leu Ala Gly Ala Asp Phe Glu
 178 85 90 95
 179 Val Glu Met Phe Gly Asp Asp Ser Leu Ser Lys Arg Pro Met Asp Arg
 180 100 105 110
 181 Val Thr Leu Pro Leu Lys Lys Met Gly Val Ser Ile Ser Gly Gln Thr
 182 115 120 125
 183 Glu Arg Asp Leu Pro Pro Leu Arg Phe Lys Arg Asp Glu Lys Pro Lys
 184 130 135 140
 Wt--> 185 Thr Tyr Ser Leu Xaa Val Ala Asn Cys Leu Cys Pro Ser Gln Val Ser
 186 145 150 155 160
 Wt--> 187 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Lys Gly Glu Ser Val Ile Ile Glu
 188 165 170 175
 189 Lys Glu Tyr Thr Arg Asn His Thr Glu Asp Met Leu Gln Gln Phe Gly
 190 180 185 190
 191 Gly His Leu Ser Val Asp Gly Lys Lys Ile Thr Val Gln Gly Pro Gln
 192 195 200 205
 193 Lys Leu Thr Gly Gln Lys Val Val Val Pro Gly Asp Ile Ser Ser Ala
 194 210 215 220
 195 Ala Phe Trp Leu Val Ala Gly Leu Ile Ala Pro Asn Ser Arg Leu Val
 196 225 230 235 240
 197 Leu Gln Asn Val Gly Ile Asn Glu Thr Arg Thr Gly Ile Ile Asp Val
 198 245 250 255
 199 Ile Arg Ala Met Gly Gly Lys Leu Glu Ile Thr Glu Ile Asp Pro Val
 200 260 265 270
 201 Ala Lys Ser Ala Thr Leu Ile Val Glu Ser Ser Asp Leu Lys Gly Thr
 202 275 280 285
 203 Glu Ile Cys Gly Ala Leu Ile Pro Arg Leu Ile Asp Glu Leu Pro Ile
 204 290 295 300
 205 Ile Ala Leu Leu Ala Thr Gln Ala Gln Gly Val Thr Val Ile Lys Asp
 206 305 310 315 320
 207 Ala Glu Glu Leu Lys Val Lys Glu Thr Asp Arg Ile Gln Val Val Ala
 208 325 330 335
 209 Asp Ala Leu Asn Ser Met Gly Ala Asp Ile Thr Pro Thr Ala Asp Gly
 210 340 345 350
 211 Met Ile Ile Lys Gly Lys Ser Ala Leu His Gly Ala Arg Val Asn Thr
 212 355 360 365
 213 Phe Gly Asp His Arg Ile Gly Met Met Thr Ala Ile Ala Ala Leu Leu
 214 370 375 380
 215 Val Ala Asp Gly Glu Val Glu Leu Asp Arg Ala Glu Ala Ile Asn Thr

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/009,456

DATE: 01/14/2002
TIME: 07:51:07

Input Set : A:\USSEQLIST.TXT
Output Set: N:\CRF3\01142002\J009456.raw

216	385				390				395				400		
217	Ser	Tyr	Pro	Ser	Phe	Phe	Asp	Asp	Leu	Glu	Ser	Leu	Ile	His	Gly
218					405					410					415

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/009,456

DATE: 01/14/2002

TIME: 07:51:08

Input Set : A:\USSEQLIST.TXT

Output Set: N:\CRF3\01142002\J009456.raw

L:17 M:270 C: Current Application Number differs, Replaced Current Application Number
L:141 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:185 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:187 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4